



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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October 2, 1997

Certified Return Receipt Requested
P 074 976 606

Jerry Larson/Mark Hardman
Larson Limestone Company
10360 North 8800 West
P.O. Box 398
Lehi, Utah 84043

Re: Permit Review, Larson Limestone Company, Pelican Point Quarry, M/049/011, Utah County, Utah

Dear Messrs Larson and Hardman:

On April 25 and May 1, 1997, the Division received Larson Limestone Company's response to our initial review of your Notice of Intention to Conduct Large Mining Operations for the Pelican Point Quarry. The Division has completed its review of this document (review document attached). Let me apologize for the unforeseen delay in providing a more expeditious reply. I hope this delay has not created a significant inconvenience for you.

Most of our previous technical concerns have been adequately addressed. However, before the Division can proceed to issue its tentative approval for the Pelican Point Quarry, the remaining technical deficiencies need to be resolved. Please format your response in such a manner that it can be easily inserted into your existing Notice. If possible, we ask that you provide a written response within 45 days of your receipt of this letter.

Please don't hesitate to call me or Lynn Kunzler of my staff if you have any questions, or if you wish to set up a meeting to discuss this review. We can be reached at (801) 538-5286 and 538-5310, respectively.

Sincerely,

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb

Attachment: Review Comments

cc: Patrick Collins, Mt. Nebo Scientific
Buck Rose, Utah County

M049011.rew

REVIEW COMMENTS

Larson Limestone Company Pelican Point Quarry

M/049/011
(September 29, 1997)

Statutory Authority

The statutory authority of the Minerals Rules is from the Utah Mined Land Reclamation Act of 1975, section 40-8 of the Utah Code. The revised large mine operation notice of intention incorrectly referred to the Surface Mining Control and Reclamation Act as the pertinent regulations. (AAG)

R647-4-105 - Maps, Drawings & Photographs

105.1 Topographic base map, boundaries, pre-act disturbance

The table on page 10 of the Introduction section describes the acreage on Drawing 647-4-E for the "Pre-Act (1977)" activities as 40.47 acres, and the acreage for the "Pre-Act (1977) used by LLC" activities as 26.54 acres. Was the 26.54 acres of "Pre-Act (1997) used by LLC" included in the 40.47 acre figure or did the pre-act mining actually affect 67.01 acres in this area? (AAG)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Please provide cross section drawings for three locations running east-west through the mine site. The locations are the processing area, future quarry area and storage building area. (AAG)

R647-4-106 - Operation Plan

106.8 Depth to groundwater, extent of overburden, geology

Please include the location of the water wells listed in the table on page three of the Impact Assessment section on the surface facilities map. Wells which are located outside of the mapped area do not need to be shown on a separate map. (AAG)

R647-4-107 - Operation Practices

107.4 Deleterious material safety stored or removed

Please provide a copy of the approval letter from the Division of Air Quality regarding the waste oil burning facility. If this is a lengthy document please provide a copy of the first page referencing the appropriate permit number for our files. (AAG)

107.5 Suitable soils removed & stored

The last sentence of paragraph three on page 15 in the Operation Plan section, under the heading of Soils Removed & Stored is confusing. Please clarify or correct this statement. (AAG)

R647-4-108 - Hole Plugging Requirements

Pages 17 through 19 of the Operation Plan section of the submission restates the hole plugging portion of the Minerals Rules; however, there is no mention of drilling in the plan other than blast hole drilling. Does LLC intend to conduct exploration drilling or drilling for water within the permit area in the immediate future? If so, please describe these drilling plans. (AAG)

R647-4-109 - Impact Assessment

109.4 Slope stability, erosion control, air quality, safety

Page 18 of the Impact Assessment section of the submission describes the impacts to air quality. The approval order DAQE-030-95 is referenced for the grinding plant; however, the equipment and operation at the Crushing Plant are not included in this approval order. Is the current Crushing Plant considered a grandfathered source which is not subject to DAQ regulation? This page mentions a notice of intent submitted in accordance with the Utah Air Conservation Regulations. What is the approval status of this notice of intent? When available, please provide the Division with a copy of the approval letter from the DAQ. (AAG).

R647-4-110 - Reclamation Plan

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Pre-act mining created several highwalls at this site and LLC's proposed 10-year plan will continue to increase the height and extent of these highwalls. The Division granted a variance for the small mining operations notice of intention to allow the existing highwalls to remain at final reclamation rather than requiring the highwalls to be regraded to a 45 degree angle or backfilled. This variance is not automatically extended to areas of new highwall creation or areas where the existing highwall is significantly increased in height. Figure 9 of the submission describes the proposed highwalls as having a 50 foot wide bench every 195 vertical feet; however, no description of the entire highwall was included. Please describe the vertical height, number of benches, and angle of the face between benches for the final 10-year highwall configuration. Please describe the proposed reclamation for the angle of repose slopes near the processing area. (AAG)

The submission did not include any reclamation or closure of the two mine portals. Please describe the reclamation of these portals or describe their proposed post-mining use under the appropriate rule heading. (AAG)

R647-4-111 - Reclamation Practices

111.12 topsoil redistribution.

Larson Limestone is planning to use in-situ soil materials (fines) for final reclamation since there was no topsoil salvaged when the quarry was developed in the 1920's. There will be no new areas of disturbance for the 10-year mine plan. To adequately predict the reclamation potential and the adequacy of proposed soil amendments, please provide an analysis of this material which includes the following parameters:

- | | |
|---------------------------|-----------------------------------|
| 1. Texture | 6. CEC (cation exchange capacity) |
| 2. pH | 7. Total nitrogen |
| 3. EC (conductivity) | 8. Nitrate nitrogen |
| 4. SAR | 9. Phosphorus (as P_2O_5) |
| 5. Percent Organic Matter | 10. Potassium (as K_2O) |

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R647-4-112 - Variance

Page seven of the submission states no topsoil was salvaged during pre-act mining and no topsoil is salvageable in areas of proposed future mining. The reclamation plan states that amendments will be added to in-situ materials to modify them to support vegetation. A variance from the topsoil salvage and topsoil replacement is warranted. The Division can approve this variance due to the facts stated above.

The submission did not include a section describing variances already granted by DOGM, or any new variance requests. Please provide a request for an extension of the current variance from highwall stabilization/reclamation for the highwall sections to be extended or heightened. Please provide this request as described under the provisions of section R647-4-112 of the Minerals Rules. (AAG)

R647-4-113 - Surety

The cost estimate in this submission projects reclamation costs for 33.10 acres as \$47,700. The reclamation tasks included scarification of the surface to a six inch depth, spreading manure at 10 tons per acre, grading 3 drainages, light disk harrowing and fertilizing, and seeding. The estimate did not include costs for demolition or removal of structures and concrete foundations, the creation of safety berms around the base of the highwall, the creation of safety berms or barriers preventing access above highwalls, regrading fill material from pad areas, and ripping the facilities area and access roads to a 12 inch depth. Costs for these tasks need to be included since these tasks are proposed reclamation treatments. In addition, mobilization and supervision need to be included to make the estimate representative of third-party costs. Division policy also includes the addition of a ten percent contingency onto the subtotal followed by five years of escalation using the current escalation factor of 2.52%. Please modify the reclamation estimate to include these missing items. In addition, please include the unit costs and areas, volumes or lengths used to arrive at each subtotal in the revised estimate. For example, the line item for drainage grading would include the total linear foot of drainage, the cross sectional area or volume per linear foot, the cost per unit foot and the final subtotal. This supporting information may be listed separately from the estimate calculations if convenient. The Division will need the information requested in this review letter in order to determine the adequacy of the reclamation estimate. (AAG)